

## **REMARKS**

The Examiner is thanked for his courtesy in indicating the approval of the proposed drawing corrections. New formal drawings are attached to this Amendment.

In paragraph 4 of the Office Action, claims 9-10 were rejected as being anticipated by Hartmann (-763).

Reconsideration is requested.

Claims 9-11 have been canceled and new claim 12 has been added in order to clearly distinguish Applicant's invention over the prior art documents and, more specifically, over the Hartmann (-763) patent. New claim 12 has been carefully drafted to avoid adding new matter. The added features to new claim 12 are explicitly disclosed in the specification at pages 8, 9 and 10.

New claim 12 points out that each hole of the melt-blown die corresponds to a like extending path that connects the polymeric inlet channel to each hole of the melt-blown die. In other words, in claimed melt blowing head has a plurality of discrete equal paths which connect individually each hole of the melt blowing die to the polymeric material inlet channel.

This is very different from the device disclosed by Hartmann (-763) which was applied as an anticipation of canceled claims 9 and 10. In fact, this patent discloses and shows, in particular in figure 10, a spinneret provided with a plurality of spinneret heads each having a line of spinneret holes and an air passageway that is disposed adjacent to each row of spinneret holes and on each side thereof. Resin is supplied by conveyor to the pump which in turn moves the resin to the conduit system which conducts the resin to the spinneret holes. Primary air for assisting the drawing of monofilaments is introduced via conduits and issues from the air discharge passageway.

The guide passageway that is interposed between the spinneret and the fleece form is a square chamber with a

centrally disposed opening for passage of the filaments extending there through and with a plate disposed adjacent the filament path through the chamber on each side of the filament path.

The Hartmann (-763) melt-blown head does have a plurality of discrete passages connecting the polymer inlet channel to the individual holes of the spinneret. On the contrary, each row of spinneret holes is supplied by a dedicated single passage.

From new claim 12, one of the other main features of Applicant's invention is that the Applicant's melt blowing head is provided with two main channels having like shapes and size. The concept of providing a pair of like channels is not disclosed or addressed by the prior art. In addition, a further main feature of Applicant's melt-blowing head is that one of the two main channels has an end portion defining a first knot of the channel arrangement, from the first knot extending two first side branches, the other of said main channels having an end portion defining a second knot therefrom extending other two second branches having the same L-shape and size of said two first side branches. On the contrary, Hartmann (-763) does not disclose a first knot and a second knot. Moreover, as a further main feature of Applicant's melt-blowing head, the first and second branches have respective end portions forming middle branches of the channel arrangement. Additional knots extend from secondary side branches extending having equal L-shape and size as those of the first and second branches; no middle branches of the channel arrangement are provided in the prior head and, moreover, no further knots are provided therefrom further secondary side branches extend. In figure 10, the prior art shows L shape paths with the downward directed leg of the L-shape of conical arrangement communicating with the row of die holes, but not with a plurality of individual discrete passages each communicating with a discrete hole of the spinneret.

In this connection, Applicant wishes to point out

that Hartmann (-763) does not address the problem that is related to the holding the polymeric material in each supplying branch for an equal holding time. This feature is not disclosed in the cited reference and it is requested that this ground of rejection be withdrawn.

In paragraph 6 of the Office Action, claim 11 was rejected under 35 U.S.C. §103(a) as being unpatentable over Hartmann (-763) in view of Nakata (-838).

Reconsideration is requested.

The Hartmann (-763) reference has been distinguished from the claimed invention *supra*. The Nakata (-838) reference describes a method making a doormat by using a multi-hole nozzle plate to apply different colored resins onto a surface by moving the nozzles. The description of the resin flow path and nozzle arrangement in Figs. 4, 5 and 6 of Nakata (-838) does not suggest the Applicant's claimed device which provides for conducting molten resin through a channel arrangement which provides for conducting resin to each outlet hole. This is not suggested by either Hartmann (-763) or Nakata (-838) when considered alone or in combination. For these reasons, it is requested that this ground of rejection be withdrawn.

In paragraph 7 of the Office Action, claims 9 and 10 were rejected under 35 U.S.C. §103(a) as being unpatentable over Allen et al (-848) taken together with Wells (-336) in further view of Hartmann (-763).

Reconsideration is requested.

The Allen et al (-848) patent does not have the delivery channel arrangement pointed out in new claim 12. Fig. 5 of this patent shows a tree delivery system where the delivery path is such that it does not provide for holding the polymer material in each branch for an equal holding time. This is evident from Fig. 5 which shows that the flow paths are not of equal lengths which will prevent the holding times for each branch from being equal.

The Wells (-336) patent only discloses a molding head where the branches are not L-shaped, but have slanted portions

and vertical portions integral therewith. This configuration does not provide any L-shaped branches. In addition, Wells does not describe the concept of providing two secondary side branches having an L-shape as pointed out in new claim 12. Hartmann (-763) does not provide any teaching which can be combined with either Allen (-848) or Wells (-336) which would cause a skilled artisan to provide a melt extrusion head that has a structure that would provide for equal holding time for the resin that is delivered to the respective holes or nozzles of the die. For these reasons, it is requested that this ground of rejection not be applied to reject new claim 12.

In paragraph 8 of the Office Action, claim 11 was rejected under 35 U.S.C. §103(a) over Allen '848 further in view of Hartmann (-763) and further in view of Choi.

Reconsideration is requested.

Allen et al (-848) and Hartmann (-763) have been distinguished from the claimed invention supra. The Choi patent fails to disclose any L-shaped branches of substantially equal length. For these reasons, none of the cited references provide a teaching of a structure which makes obvious the claimed structure of new claim 12. For these reasons, it is requested that this ground of rejection not be applied to reject new claim 12.

Respectfully submitted



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